

Lycosid Spiders of Japan IV. The Genus *Tricca* SIMON

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田中穂積¹⁾: 日本のコモリグモ IV. ヒノマルコモリグモ属

Abstract: This paper is the fourth of the species of "Lycosid spiders of Japan" in which one species *Tricca japonica* SIMON is redescribed in detail and illustrated, with notes on the biology. Although the name *Lycosa ipsa* is prior to *Tricca japonica*, the former is treated as nomen oblitum.

Introduction

The genus *Tricca* established by SIMON (1888) included three species, *japonica* SIMON, 1888—Japan, *kansuensis* (SCHENKEL, 1936)—China and *lutetiana* (SIMON, 1876)—Europe.

Regarding the genus *Tricca*, there are two problems. One is the relationship between genera, *Tricca* and *Arctosa*, and the other is the priority of the *Lycosa ipsa* or *Tricca japonica*. In the present paper, the first problem is not dealt with.

Before going further, hearty thanks are due to Dr. S. MORIUTI, University of Osaka Prefecture, for his kind guidance in this study and preparing the present paper, and to Emeritus Prof. T. YAGINUMA, Otomon Gakuin University, for his valuable advice and allowing me to examine his personal collection. Furthermore, my thanks are also due to Mr. K. KATSURA, Mr. S. MATSUMOTO, Prof. Y. NISHIKAWA, Dr. C. OKUMA, Mr. H. SAITO, Mr. E. SHINKAI, Mr. A. TANIKAWA, and Mr. T. YAMANO for offering or loaning specimens used in this study.

Genus *Tricca* SIMON

Tricca SIMON, 1888, p.250; 1898, pp. 328, 347; DAHL, 1908, pp. 199, 325; F. & M. DAHL, 1927, pp. 3, 10; PETRUNKEVITCH, 1928, p.250; ROEWER, 1928, p.129; 1932, p.430; SIMON, 1937, pp.1090, 1141; WIEBES, 1956, p.412; ROEWER, 1959, p.950; BONNET, 1959, p.4684; YAGINUMA, 1960, p.86; LUGETTI and TONGIORGI, 1965, p.209; FUHN and NICULESCU-BURLACU, 1971, p.219; TYSTSCHENKO, 1971, p.168. Type-species: *Tricca japonica* SIMON, 1888.

Of medium size. Carapace without light median band. Head with sloping sides. AER recurved and longer than PMR; AME equal to, or longer than, ALE. Clypeus about half the

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diameter of AME. Chelicerae with three or four teeth on retromargin. Legs with stumpy spines on ventral surface; a spine at prolateral apex of femora I: tibiae IV with a spine modified basally stout, and apically slender at dorsal base.

Biological notes: This spider lives among fallen leaves or in the crevices or in the holes of the ground in the fields. The egg sac is globular and whitish yellow.

Remarks: Although some arachnologists treat *Tricca* as a junior synonym of *Arctosa*, as I come to no definite conclusion about these two genera, I use the same *Tricca*, in this paper. The date of the publication of *Tricca* and *T. japonica* differs among arachnologists. BONNET (1959) and PLATNICK (1989) use 1889, while most of arachnologists use 1888. I, however, treat the date as 1888 which is mentioned at the footnote of the first page of SIMON's original paper.

Tricca japonica SIMON, 1888 (Figs. 1–4)

[Japanese name: Hinomaru-komorigumo]

Lycosa ipsa KARSCH, 1879, p.101, pl.1, figs. 20, 20(a); SAITO, 1941, p.98, fig.110; BONNET, 1956, p.2647;

YAGINUMA, 1970, p.666; 1977, p.393; TANAKA, 1980, p.49, figs.3–7. (nom. oblit.)

Trochosula ipsa: ROEWER, 1954, p.304.

Tricca ipsa: TANAKA, 1980, pp.50 & 54.

Arctosa ipsa: PLATNICK, 1989, p.364.

Tricca japonica SIMON, 1888, p.250; ROEWER, 1954, p.297; YAGINUMA, 1960, p.86, pl.40, fig.228; 1961, pp.83 & 86, figs. A–C; BRAUN, 1963, p.81; YAGINUMA, 1970, p.667.

Tarentula japonica: BÖSENBERG and STRAND, 1906, p.318, pl.8, figs.103, 110, pl.13, figs.319, 335, 346; STRAND, 1916, p.98; SAITO, 1939, p.70.

Lycosa japonica: SAITO, 1941, p.110, fig.125; 1959, p.54, pl.5, fig. 34.

Triccosta japonica: ROEWER, 1960, p.866.

Arctosa japonica: DONDALE and REDNER, 1983, p.3; YAGINUMA, 1986, p.159, fig.87; CHIKUNI, 1989, p.241.

Female

Specimen examined: Satamisaki, Kagoshima Prefecture, Kyushu, 29. V. 1971 (H. TANAKA).

Measurements (mm). Total length 6.45. Carapace length 3.20, width 2.35. Abdomen length 3.25, width 2.05.

Leg	Femur	Patella & tibia	Metatarsus	Tarsus	Total
I	2.10	2.55	1.25	0.90	6.80
II	1.85	2.25	1.25	0.85	6.20
III	1.80	1.90	1.45	0.85	6.00
IV	2.35	2.80	2.35	1.05	8.55
Palp	1.15	1.10	—	0.75	3.00

Carapace reddish brown, dark brown striae radiating from fovea. AE equal in size: AME separated from each other by length being smaller half the diameter of AME, and from ALE by about half the diameter of AME: AER notably recurved. Clypeus yellowish brown, smaller

than the diameter of AME. Chelicerae reddish brown. Maxillae and labium yellowish brown, and light yellow at apex. Sternum yellowish brown. Abdomen blackish grey, with some yellowish brown patches on posterior half; a lanceolate median mark distinct; lateral sides light yellowish brown, with blackish grey markings; venter light yellowish brown. Legs and palpi uniformly reddish brown. Epigynum with a genital opening diverging downward and a pair of dark brown markings (fig. 1); the surface covered with many white hairs; two dark brown conspicuous triangular spermathecae as in fig. 2.

Male

Specimen examined: Satamisaki, Kagoshima Prefecture, Kyushu, 29. V. 1971 (H. TANAKA).

Measurements (mm). Total length 6.80. Carapace length 3.75, width 2.70. Abdomen length 3.05, width 1.90.

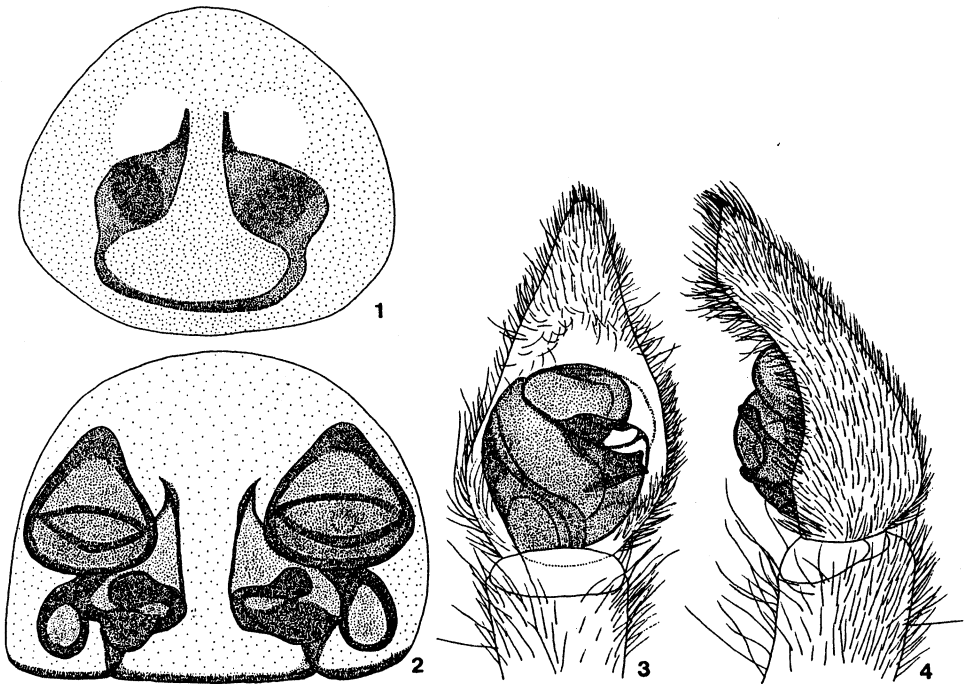
Leg	Femur	Patella & Tibia	Metatarsus	Tarsus	Total
I	2.35	3.05	1.60	1.10	8.10
II	2.20	2.70	1.60	1.05	7.55
III	1.95	2.30	1.85	0.95	7.05
IV	2.65	3.25	2.85	1.25	10.00
Palp	1.40	1.15	—	1.00	3.55

Similar to the female, but differs from it as follows: Fang of chelicera with a small excrescence on outside. Tarsi I with many white pubescence. Palpi: tarsal organs (figs. 3–4) with a robust transverse median apophysis.

Variation: Total length ♀ 6.45–11.40, ♂ 6.15–9.05. Carapace length ♀ 3.20–4.30, ♂ 3.30–4.75; width ♀ 2.35–3.10, ♂ 2.55–3.50. Abdomen length ♀ 3.20–7.10, ♂ 2.85–4.30; width ♀ 2.05–4.40, ♂ 1.75–2.85. The color varies from light yellowish brown to dark reddish brown. Chelicerae rarely with four teeth on retromargin.

Material examined: Honshu- 1 ♀, Ashikage-city, Tochigi Pref., 8. VI. 1978 (H. SAITO); 1 ♂, Hazama, Ashikaga-city, Tochigi Pref., 23. III. 1980 (H. SAITO); 1 ♀, 1 ♂, Mitsukaido-shi, Ibaraki Pref., 4. IV. 1975 (S. UTSUMI Leg., TY*); 1 ♂, Hidaka-cho, Irima-gun, Saitama Pref., 22. V. 1974 (H. TANAKA); 1 ♀, Wada-cho, Chiba Pref., 25. VII. 1970 (S. MATSUMOTO); 1 ♀, Narita-city, Chiba Pref., 4. VII. 1983 (E. SHINKAI); 1 ♀, Niiijima Is., Izu-shichito, Tokyo, 3. V. 1955 (T. AOKI Leg., TY); 1 ♂, Yotsuie, Hamamatsu-shi, Shizuoka Pref., 24. IV. 1958 (T. SUZUKI Leg., TY); 1 ♀, Fujieda-shi, Shizuoka Pref., VIII. 1965 (H. KASAHARA Leg, TY); 1 ♂, Shiratori-cho, Gifu Pref., 5. V. 1973 (K. KATSURA); 1 ♀, 1 ♂, Mikunicho, Fukui Pref., 10. VII. 1980 (T. YAMANO); 1 ♂, Fukano, Iitaka-cho, Iinan-gun, Mie Pref., 21. V. 1977 (K. KATSURA); 1 ♂, Mie Pref., 21. III. 1978 (K. KAIHOTSU Leg., TY); 1 ♂, Tado, Yoshino-gun, Nara Pref., 30. V. 1951 (TY); 1 ♀, Omine, Nara Pref., 21. VI. 1957 (Y. OKADA); 1 ♀, Yoshino,

*Personal collection of Emeritus Prof. T. YAGINUMA, Otemon Gakuin University, Osaka.



Figs. 1–4 *Tricca japonica* SIMON: 1, Female epigynum (ventral view); 2, Female epigynum (dorsal view); 3, Male palp (ventral view); 4, Male palp (retrolateral view).

Nara Pref., 18. VIII. 1981 (H. TANAKA); 1 ♀, Imanishi, Nose-cho, Osaka Pref., 7. III. 1972 (Y. NISHIKAWA); 1 ♂, Suita, Osaka Pref., 24. VI. 1973 (Y. NISHIKAWA); 1 ♀, Sakai, Osaka Pref., 29. VI. 1970 (H. TANAKA); 1 ♂, same locality, 1. VII. 1971 (H. TANAKA); 1 ♀, 1 ♂, same locality, 15. V. 1973 (H. TANAKA); 1 ♂, same locality, 15. IV. 1975 (Y. KUWANA); 1 ♂, same locality, 8. VI. 1975 (K. UEDA); 1 ♀, same locality, 29. V. 1976 (H. TANAKA); 2 ♂, same locality, 10. VI. 1976 (H. TANAKA); 2 ♂, same locality 14. VI. 1976 (Y. SHIROTA); 6 ♀, same locality, 17. VI. 1976 (H. TANAKA); 1 ♂, Aguta, Kaibara-cho, Hyogo Pref., 27. VII. 1961 (TY); 1 ♀, Mikata, Hyogo Pref., 4. VII. 1970 (H. TANAKA); 1 ♀, Matsue, Shimane Pref., 19. VI. 1975 (S. HONJO); Shikoku- 1 ♂, Tarumi, Ehime Pref., 25. V. 1970 (H. TANAKA); 1 ♂, Kouchi-shi, Kouchi Pref., 5. V. 1956 (K. NAKAHIRA Leg., TY); Kyushu- 1 ♀, Hikosan, Fukuoka Pref., 25. VIII. 1954 (C. OKUMA); 2 ♂, same locality, 20–24. V. 1971 (H. TANAKA); 1 ♀, Kinryu, Saga Pref., 21. VIII. 1978 (H. TANAKA); 1 ♀ (Holotype of *ipsa*, ZMB**-2719,2725), Nagasaki Pref. (F. HILGENDORF); 1 ♂, Mt. Gongen, Tsushima, Nagasaki Pref., 27. V. 1968 (M. T. CHUJO); 2 ♀, Shuba, Miyazaki Pref., 6–7. VIII. 1961 (C. OKUMA); 1 ♀, Mikami-cho, Kumamoto Pref., 24. VI. 1973 (T. IRIE); 1 ♀, 1 ♂, Kirishimajingu, Kagoshima Pref., 27. V.

**ZMB: the Zoological Museum, Humboldt Universitat, Berlin, East Germany.

1971 (H. TANAKA); 1 ♀, 2 ♂, Satamisaki, Kagoshima Pref., 29. V. 1971 (H. TANAKA); 1 ♀, Shiroyama, Kagoshima Pref., 10. VII. 1976 (S. TSUKAGUCHI); Tokara Isls.—1 ♂, Nakanoshima Is., 4–13. VI. 1953 (Y. TSUTSUI Leg., TY); Sakishima Isls.—1 ♂, Funaura, Iriomote Is., 27. III. 1982 (E. NISHIDA); 1 ♀, Urauchi, Iriomote Is., 31. III. 1984 (A. TANIKAWA); 1 ♂, Ootomi, Iriomote Is., 4. V. 1984 (A. TANIKAWA).

Distribution: Japan (Honshu, Shikoku, Kyushu, and Nansei Isls.).

Biological notes: Mature females are found from May to August and males from April to July. The formation of egg sacs are found in June and July. The number of eggs is 65 in one egg sac on the average.

Remarks: In 1980, I reported that *Tricca japonica* SIMON was identical to *Lycosa ipsa* KARSCH, but the name of the latter had not been used for more than fifty years since it was described by KARSCH in 1879. According to the rule of the ICZN, I treat *Lycosa ipsa* as nomen oblitum.

摘 要

日本に分布する *Tricca* 属(ヒノマルコモリグモ属)の標徴および本属に含まれる日本から得られた1種, *Tricca japonica* (ヒノマルコモリグモ)の再記載を行なった。本属は学者によっては独立属として扱われたり, *Arctosa* 属に含まれたりするが, 本論文では独立属として扱っている。両属の関係については, 今後, 論じる予定である。*T. japonica* は *Lycosa ipsa* に先取されるが, *L. ipsa* を nomen oblitum として扱った。

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